

## REMARKS

Pursuant to 37 CFR 1.137(b), this amendment is included with the Applicants' petition for the Revival of the above-referenced abandoned application.

The above-identified Office Action dated October 20, 2008, contained a final rejection of claims 1-20, 22-20, 63, 64, 68, 71, 74 and 75. In response, claims 1, 10 and 22 have been amended. Claims 1-20, 22-20, 63, 64, 68, 71, 74 and 75 are in the case. Please consider the present amendment with the attached Request for Continued Examination (RCE) under 37 C.F.R. § 1.114. This amendment is in accordance with 37 C.F.R. § 1.114. Reexamination and reconsideration of the application, as amended, are requested.

The Office Action rejected claims 1-20, 22-30, 63-64, 68, 71 and 74-75 under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Yudasaka et al. (EP 1085578). The Office Action rejected claims 1-20, 22-30, 63-64, 68, 71 and 74-75 under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Furusawa et al. (WO 00/59044 – US Patent No. 6,518,087 as same patent family member used for citation purposes).

The Applicants respectfully traverse these rejections and submit that neither Yudasaka et al. nor Furusawa et al. disclose, teach or suggest all of the features of the independent claims.

### Anticipation Rejections:

With regard to the anticipation rejections, the Applicants submit that Yudasaka does not disclose the Applicants' newly claimed nanoparticles consisting of only either silicon element or germanium element. Instead, both Yudasaka and Furusawa merely disclose depositing a **solution of compounds**, but do not disclose depositing only either silicon element or germanium element nanoparticles, as in the Applicants' independent claims. For example, Yudasaka **explicitly** discloses using "silicon compounds" due to the "solubility of the silicon compound and modified silicon compound and stability of the solution" (see paragraph 45 of Yudasaka et al.) [emphasis added]. Consequently, since neither Yudasaka nor Furusawa disclose depositing silicon or germanium in elemental form, as arranged in the Applicants' independent claims, neither reference can anticipate the claims. Hence, the Applicants kindly request withdrawal of the anticipation rejections.

### **Obviousness Rejections:**

With regard to the obviousness rejections, as argued above, the cited references are missing features of the independent claims. According to case law and the MPEP, all of the claimed elements of an Applicants' invention **must be considered**. (*In re Kotzab*, 55 USPQ 2d 1313, 1318 (Fed. Cir. 2000). *MPEP 2143.*) [emphasis added]. If **one** of the elements of the Applicant's invention is **missing** from or not taught in the cited references, then no *prima facie* case of obviousness exists. (*MPEP 2143.03*).

In addition, the rejections of the claims under 35 U.S.C. § 103(a) should be withdrawn because even though the cited references do not disclose, teach, or suggest all of the features of the Applicants' claimed invention, the references should not be considered together because Yudasaka **teaches away** from the Applicants' claimed invention.

In *KSR v. Teleflex*, 550 U.S. \_\_\_, 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007), the Supreme Court "relied upon the corollary principle that when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is likely to be nonobvious" (*KSR*, at 12), referring to its earlier decision *United States v. Adams*, 383 US 39 (1966). One such type of "teaching away" is that "the proposed modification cannot render the prior art unsatisfactory for its intended purpose" (MPEP sec. 2143.01.V., citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)).

Namely, Yudasaka **teaches away** from the Applicants' claimed invention because Yudasaka explicitly states that "[W]hile the solvents to be used in the present invention are not particularly limited, provided **that they dissolve the silicon compound and do not react with the silicon compound...**" [emphasis added]. Hence, because Yudasaka requires the solvent to dissolve the silicon compound without reaction, the intended function in Yudasaka would be destroyed and rendered unsatisfactory for its intended purpose and the principle of operation of Yudasaka would change if the Applicants' claimed "nanoparticles **consisting of only** either silicon element or germanium element" [emphasis added] were co-deposited and used in Yudasaka.

The MPEP section 2143.01, part V. clearly states that "[I]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed

modification. Also, MPEP section 2143.01, part VI. states that “[I]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). As a result, this “teaching away” prevents the Yudasaka et al. reference from being used by the Examiner. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984).

With regard to the dependent claims, since they depend from the above-argued respective independent claims, they are therefore patentable on the same basis. (MPEP § 2143.03). As such, withdrawal of the obviousness rejection of the claims is respectfully requested.

Thus, it is respectfully requested that all of the claims be allowed based on the amendments and arguments. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. Additionally, in an effort to further the prosecution of the subject application, the Applicants kindly request the Examiner to telephone the Applicants' attorney at **(818) 885-1575**. Please note that all mail correspondence should continue to be directed to:

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Respectfully submitted,  
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